

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

ULF P.F. LINDAHL et al

Serial No. 109,936

Filed: January 4, 1980

For: HEPARIN FRAGMENTS HAVING  
SELECTIVE ANTICOAGULATION  
ACTIVITY

Art Unit: 125

Examiner: Brown

RECEIVED

MAR 16 1981

R E S P O N S E

Hon. Commissioner of Patents and Trademarks  
Washington, D.C. 20231

GROUP 120

Sir:

In response to the Office Action dated December 8,  
1980, please amend the above-identified application as  
follows:

CM 1 (Amended). Heparin fragments[, characterized by] having  
14-18 sugar units, wherein the main component is the di-  
saccharide unit L-iduronosyl-2-O-sulphate-N-sulpho-D-  
glucosamine-6-O-sulphate [being the main component], and  
where unsulphated L-iduronic acid is in a position situated  
3-5 sugar units from the unreducing terminal and is followed  
by a unit selected from the group consisting of N-sulpho-  
D-glucosamine sulphate and N-acetyl-glucosamine in sulphated  
and unsulphated form.

Claim 2, line 1, delete ",characterized by"  
and substitute therefor --having--.

3 (Amended). Pharmaceutical compositions[, characterized  
in that they comprise] for preventative treatment or treatment  
of arterial thrombosis containing heparin fragments having  
selective anticoagulation activity and containing 14-18  
sugar units, wherein the main component is the disaccharide  
unit L-iduronosyl-2-O-sulphate-N-sulpho-D-glucosamine-6-O-  
sulphate [being the main component], and where unsulphated  
L-iduronic acid is in a position situated 3-5 sugar units